

Remarks

The present amendment is in response to the Office Action mailed in the above-referenced case on November 20, 2007. Claims 29-36 are standing for examination.

Rejection under 35 U.S.C. 101

Claims 33-36 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Examiner's rejection

The language of the claim raises a question as to whether the claim is directed merely to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101 .Claims 33 and 35, claim the non-statutory subject matter of a computer program code. Data structures not claimed as embodied in computer readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer.

Applicant's response

Applicant herein amends claims 33 to recite; “Computer program code embodied in a ~~storage medium on a computer-readable media....~~”

Claims 35 and 36 are cancelled.

As the examiner states that” “Data structures not claimed as embodied in computer readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer.”, the applicant believes the amendment to claims 33 corrects the 101 problem, and claim 33 now recites statutory subject matter. The examiner’s statement regarding the applicant’s spec not adequately specifying the media should not weigh against the claim being statutory. A person with ordinary skill in the art, reading this, or any other specification describing

software, will have to understand that the software is embodied on and executes from a computer-readable medium, because software can operate in no other way in a computer, and how it happens is notoriously well-known in the art. No applicant should be required to specify in a description of a computer operating software that the software is embodied and executes from a hard-disk as opposed to a flash memory, as opposed to a CD, as opposed to any other sort of memory medium, ALL OF WHICH ARE COMPUTER READABLE . Therefore, the rejection under 35 U.S.C. 101 should be withdrawn.

Rejection under 35 U.S.C. 102(e)

Claims 29, 31, 33 and 35 are rejected under 35 U.S.C. 102(e) as being anticipated by Sassin et al. (US 6,058,435) hereinafter Sassin.

Examiner's rejection

Regarding claims 29 and 31, Sassin et al. disclose a method of assigning tasks to agents in a service center based on agent skills required to service individual tasks, comprising:

in response to a task (col. 7, line 20 - incoming communication) to be service, determining a skill set that would be best suited for responding to the task (col. 3, lines 33-36; col. 7, lines 25-36 and lines 56-59);

building a skill table of all available agents having skills at least partially matching the determination of skills needed to service the task based upon the skills that they possessed (col. 7, lines 25-35; col. 8, lines 9-22 and lines 47-65 - where Sassin discussed particularly col. 8, lines 47-49 generating the agents table contains a list of all of the agents of the ACD system);

determining from the skill table of available agents all agents with best match to service the task (col. 8, line 57 through col. 9, line 14);

selecting an agent to service the task from the agents determined to have the best match to service the task (col. 3, lines 33-36; col. 9, lines 11-14; col. 10, lines 2-5).

Claims 33 and 35 are rejected for the same reasons as discussed above with respect to claim 1. Furthermore, Sassin et al. teach computer program code embodied in a storage medium for controlling a computer to assign tasks to agents (col. 11, lines 40-67; col. 13, lines 49-60 - media converter 106, content analyzer 108, content-based router 1 10).

Applicant's response

Applicant argues that Sassin builds and maintains one agent table. Tasks are then received, skills determined for the tasks and the entire agent table is then accessed to determine the best agent to service the task. Applicant points out that it is especially advantageous and efficient to determine skills required in a task *and then* to build a table of all available agents having skills that at least partially match the skills required to service the task. Only with the claimed system can the proper efficiency, organization and data processing occur to determine the best agent to service the task. In this manner a unique table is generated only of agents having skills matching the skills of the required task. Then the skills of the agents are further narrowed to determine the best agent to handle the task. In applicant's invention a complete database search of every agent for every incoming task need not occur, as in the art of Sassin.

Specifically, as seen in Fig. 3 of Sassin, step 58 generates a skills table of skills possessed by each agent, step 60 generates an agent's table and step 62 generates a résumé-details table. These steps are taught as "set-up" steps prior to routing incoming communications (col. 8, lines 26-54).

Sassin then teaches; "After the three tables have been formed in steps 58, 60 and 62, the skills inventory database 48 of FIG. 2 has the information necessary for skills-based communications routing. This information is accessible by the skills correlation device 44. In step 64, an incoming communication is received at the information distribution system 10 of FIG. 1." (col. 9, lines 23-27)

As clearly seen above Sassin agent generates tables prior to receiving a communication for routing. Applicant understands that the PTO has upheld basic requirements of anticipation in that it is not enough to require that the disclosure in a

single prior art reference disclose all of the claimed elements, rather, as stated by the Federal Circuit, anticipation requires the presence in a single disclosure of each and every element of the claimed invention, arranged as in the recited claim. Surely applicant expects method claim 29 to be examined wherein art is applied according to the steps as recited in order. Sassin fails to teach skills determined in an incoming communication prior to the agent table which is accessed to determine and match skills of an agent, as claimed.

Examiner's response

The Examiner kindly responded to the arguments made above in the present Office Action. The Examiner states:

Applicant's arguments filed 08/29/07 have been fully considered but they are not persuasive. Claims 33-36 recite "a computer-readable media". However, Applicant's disclosure has no clear support of what media has been positively disclosed as. Hence, the 101 rejection is maintained.

Applicant argues that Sassin builds and maintains one agent table (Remarks, page 5). Examiner respectfully disagrees. Sassin teaches a collective table of available agents (col. 8, lines 17-21 and lines 47-49 - where Sassin discussed particularly col. 8, lines 47-49 generating the agents table contains a list of all of the agents of the ACD system).

Applicant argues that tasks are received, the skills required are known before the table is generated to facilitate finding the best agent (Remarks, pages 5-6). This limitation is also taught by Sassin in col. 8, line 66 through col. 9, line 27, where Sassin discussed having a particular agent handle incoming communications requiring a particular skill, hence in order to assign an agent to handle a particular incoming communication, the skills required to handle the incoming communication are known ahead of time. Furthermore, there is no suggestion in Sassin that tasks have to be received, skills determined, and the agent table is accessed to determine the best agent, in that order.

Applicant's response

The Examiner is clearly ignoring the patentable claim recitation in applicant's independent claims reciting the order in which the process occurs, particularly that the agent table utilized to select the best fit agent to handle an incoming task is formed **after** receiving an incoming task. In applicant's invention the task to be handled by an is received, skills etc. are determined for the task, then the agent table is created and accessed to find the best fit agent according to the skills required for the task.

Sassin clearly teaches in Fig. 3 that the agent tables are formulated (steps 58 and 60) prior to receiving the task to be handled by the agent (step 64). Sassin teaches: "In step 60, the agents table is generated. This table contains a list of all of the agents of the ACD system and stores important data regarding each agent. A RésuméCode field is used to access agent résumés. Specifically, associated with each agent in the agents table is a RésuméCode field that can be used as an identifier of the agent when the agents table is queried to look up the skills of the particular agent. The résumé-details table is generated at step 62. This table details the identifier of each skill in order to reference back to the skills table and details the agents RésuméCode to reference back to the agents table. In addition, the résumé- details table contains skill levels, skill preferences and excluded flags. A skill level is the level of knowledge or expertise that a particular agent has achieved in a given skill. That is, the skill itself is identified in the skills table generated in step 58 and the rating is identified in the resume-details table. While not critical, the skill levels may be ratings on a scale of 1 to 9, with 9 indicating the greatest level of expertise." (col. 8, lines 47-65)

"After the three tables have been formed in steps 58, 60 and the skills inventory database 48 of FIG. 2 has the information necessary for skills-based communications routing. This information is accessible by the skills correlation device 44. In step 64, an incoming communication is received at the information distribution system 10 of FIG. 1." (col. 9, lines 23-27)

Applicant argues that the Examiner may not ignore the order in which applicant's invention occurs when examining the claims. As previously argued the PTO has upheld basic requirements of anticipation in that it is not enough to require that the disclosure in a single prior art reference disclose all of the claimed elements, rather, as stated by the Federal Circuit, anticipation requires the presence in a single disclosure of each and every element of the claimed invention, arranged as in the recited claim.

Applicant's specification teaches referencing Fig. 5; "At entry point 500, it is assumed that a task arrives for servicing. Step 502 determines in any number of suitable ways the skills expression required to service the task. Step 504 converts the required skills expression to canonical form, if necessary. Step 506 assigns to the variable SP the number of terms in the canonical form of the required skills expression. Step 508 builds the agent resume table of Fig. 1, considering only those agents that are presently available for servicing a task. Step 510 maps the required skills expression onto the available agent resume table to generate the mapping of Fig. 2. Step 512 eliminates all agents that have skills outside of the mapping of Fig. 2. This generates the mapping of qualified agents (Fig. 3) for the task at hand. Step 514 calculates the value of API for each qualified agent, where it is recalled that API for agent I is the number of times that agent appears in the mapping of Fig. 3. Finally, step 516 selects the minimally qualified available agent by selecting the agent with the smallest value of SP - AP,. This algorithm for selecting a qualified agent to service a task is very efficient compared to known brute force methods of plowing through the skills of all agents to generate a qualified set and then plowing though that set to find a minimally qualified agent. (page 7, lines 11-27)

Applicant's invention, as claimed, provides a more efficient method of determining best fit agent to handle a task by preparing a custom qualified agent table to handle a given task, generated after the task is received and accessed to determine the best fit agent before the task is routed.

Applicant argues that Sassin fails to teach all of limitations recited in applicant's independent claims in the order claimed; therefore the 102 rejection fails as a prima facie case of anticipation has not been shown. Applicant believes claims 29, 31, 33 and 35 are

clearly patentable over the art of Sassin. Claims 30, 32, 34 and 36 are patentable on their own merits, or at least as depended upon a patentable claim.

Summary

As all of the claims have been shown to be patentable over the art of record, applicant respectfully requests that the rejection be withdrawn and that the case be passed quickly to issue. If any fees are due beyond fees paid with this amendment, authorization is made to deduct those fees from deposit account 50-0534. If any time extension is needed beyond any extension requested with this amendment, such extension is hereby requested.

Respectfully Submitted,
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